

Applicant Name Bainville, Town of
Project Name Bainville Wastewater System Improvements

Project Abstract

The Town of Bainville's collection system was constructed in the 1950s consisting predominantly of eight-inch clay tile. About 15% to 20% of the pipe was replaced in 1999, along with the lift station. The lagoons were constructed circa 1975, but no lining was placed.

The state visited the Bainville lagoons in 2004. The first visit noted concerns about leakage, while the second noted that the lagoon dikes were so severely eroded as to be vertical and in some cases concave. Failure of the dikes and outflow of 30 years of sludge appears imminent. The clay tile collection system pipe leaks excessively and the current wastewater contribution per capita is 162 gallons per day. Inspections demonstrated a high groundwater table and high infiltration. Standing water level in a disconnected manhole was three feet from the surface in northeastern parts of town.

The Preliminary Engineering Report (PER) proposed the following actions and funding is being sought to:

- Clear and videotape all sewer lines;
- Replace the sewer lines shown to have the worst potential for leakage, estimated at 2,400 feet;
- Construct a three-cell facultative system and provide a liner for all cells;
- Dispose sludge; and
- Provide for final wastewater disposal through irrigation.

The most significant benefit of the proposed project is preservation of the groundwater, surface water, public health, and public safety. With dike failure imminent, the proposed project is absolutely essential to preservation of Shotgun Creek and the lower Missouri. With 85% leakage, large volumes of untreated wastewater are entering the groundwater adjacent to Shotgun Creek, a tributary to the lower Missouri, for which a Total Maximum Daily Load (TMDL) is being developed.

The project also provides conservation, management, and development of renewable resources. Through elimination of excessive leakage and use of spray irrigation, the town will be conserving water while protecting other water sources. The spray irrigation will also be used to develop more than 12 acres of agricultural land. Until the project is complete, there is nothing the town can do to better manage the facilities. The project will allow the town to comply with all federal and state standards.